

PROJECT TITLE : Additives and Analytical Services
Period Covered : June 24 - July 29, 1980
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Report Approved by : F. Lopes

ORGANISATION

- Casing kitchen

Preparation methods for 38 solutions (Burley Casing, Burley Top Flavour, AC- and PC - solutions) used in FTR were established. Ref. 1.

Propositions for the resolution of some manufacturing problems were made. - Ref. 2.

Procedures (organisation between the QC lab and the casing kitchen, total volume of PC solutions etc.) were newly defined or modified. Ref. 3, 4.

- On June 1st, the determination of the hot water solubles was introduced as a routine method (PM method A - 12 A) for tobacco lot analyses. Up to now, 111 out of 252 samples collected since December 1979, have been analysed.

TRIALS WITH NEW SUPPLIERS OF TOBACCO ADDITIVES

- Diethylene glycol (PROCHEM, Zürich; ex SHELL (NL) / yellow sheet 5744, 0.5 l).

The sample corresponds to our specification. As only a little quantity is used in FTR, further trials are not foreseen in Neuchâtel.

- Invert sugars (DEVOLDER, Bruxelles / 1kg) - Ref. 5.

Acidity, pH, density and water content are within specifications. As regards the content of reducing sugars, the value is slightly too low. A new sample was ordered.

- MFSBC Dry Flavour (PMI, Richmond / yellow sheet 5596, 540 kg) - Ref. 6.

The test cigarettes (MLF-CH) were accepted by Panel B. As the product gives only a slightly lower dust-production during preparation of Burley-Casing than the present formula, further trials are not planned.

QUALITY CONTROL OF TOBACCO ADDITIVES

- Licorice powder (Ringsted & Semler, ex Mc ANDREWS) - Ref. 7.

The sample is within our specifications.

QUALITY CONTROL OF PC-SOLUTIONS

- MF - PC export - Ref. 2

This solution often showed considerable differences in various parameters such as density. Trials showed that this problem was only due to a bad mixing and a too short stirring time (Honey and inverted sugar stuck to the bottom of the vat).

TRIALS WITH NEW SUPPLIERS OF FILTER ADDITIVES

- Activated charcoal (ICI AG, Zürich; "ATLAS c 6" / yellow sheet 5717, 1 kg).

The sample is out of specifications as regards CCl_4 - index (55 %) and iron content (0.4%).

- Activated charcoal (PICA, Levallois (FR) / 4 x 100 g).

During production of activated charcoal, up to 30 % are lost as dust. PICA proposed an agglomerated and crushed product made with this dust which could be added at any rate to the normal charcoal. Analyses showed a CCl_4 -index of 45 % for this product. Its addition to the normal charcoal results in a decrease of the CCl_4 - index (10% added : 64 %, 20 % added : 61 %, 30 % added : 60 %). Further trials are not planned.

QUALITY CONTROL OF FILTER ADDITIVES

- Activated charcoal 35 x 50 mesh (PICA, Levallois (FR) / blue sheets 7393 and 7586, 2 x 2000 kg) - Ref. 8.

Blue sheet 7393: the CCl_4 - index was located between 56 % and 65 % with an average of 62 % (specification: max 60 %). As Panel B accepted the test-cigarettes, this shipment was accepted.

Blue sheet 7586: The CCl_4 - index was located between 60 % and 72 % with an average of 66 %. The shipment had to be refused.

In connection with the problems of these two shipments, a series of comparative analyses between PICA and the QC laboratory was organized. PICA values on four samples were between 1 % and 3 % lower. Even by taking these lower values into account, both shipments were still out of specifications.

TRIALS WITH NEW SUPPLIERS OF GLUES

- Glue for packing machine (LAESSER AG, Erlinsbach, "LESSO 5021/3" / yellow sheet 5693, 2500 kg) - Ref. 9.

The good results of the first two trials were entirely confirmed. Accepted as a new standard glue (replaces "LESSO 5014").

- Glue for cigarette-seam (HENKEL CHEMIE GmbH, Pratteln;
"SPA 7636 x 3 / yellow sheet 5716, 200 kg) - Ref. 10.

The good results of the first trial were confirmed. Panel B accepted the test cigarettes (MLF-CH).

- Filter glue (hot melt) (ISAAR RAKOLL CHEMIE, Wels (Austria);
"IPATHERM WS 1067 D" / yellow sheet 5645, 3 kg).

Machineability: No significant difference from the standard.
Panel A and B : accepted (MLF - CH). However, after a storage time of two months, we found a difference from the standard glue: the seam of the filter rods were easy to open.

- Filter glue (hot melt) (DELFT CHEMIE AG, Winterthur; "CIE LOK 80",
"234 - 2980 DN" / yellow sheet 5690, 5 kg).

It is a hot melt type, already used in PMH and PMG.

Machineability: No significant difference from the standard.
Panel B : accepted.

After a storage time of two months, no difference from the standard was observed.

For a long term test, 50 kg were ordered.

ASSISTANCE QC FOR OTHER COUNTRIES

- Determination of specific conductivity - Ref. 11.

Upon request of PMH, the specific conductivity of ethanol, deionised water, propylene glycol, glycerine, liquid sugar, inverted sugar and Burley casing was determined.

SERVICES FOR OTHER GROUPS

- Analyses for foil mentholating:
Menthol in cigarettes and inner foil (87 samples)
- Analyses for P. Karbacher:
Water, ash and fat content in yeast (1 sample)
- Analyses for C. Ruf:

Determination of aluminium by atomic absorption in tobacco extract (2 samples).

Determination of sugars by HPLC in tobacco extract (19 samples).

Determination of sugars by HPLC in stems (4 samples). The determination according to the standard method was not possible because unidentified compounds interfered with the peaks of fructose and inner standard. The impurities were eliminated by a preliminary treatment of the extract with two different types of ion exchangers.

QC ANALYTICAL SERVICES



A. Widmer

REFERENCES

1. Letter from A. Schwarb to the Casing kitchen, dd July 23, 1980
2. Report A. Schwarb, dd July 16, 1980
3. Memo A. Schwarb, dd July 7, 1980
4. Minutes of the meeting, dd July 4, 1980
5. Letter from A. Widmer to Mr. B. Desmet (Devolder), dd July 28, 1980
6. Monthly report A. Widmer February 1980
7. Letter from A. Widmer to Mr. R. Froidevaux, dd July 8, 1980
8. Letter from Mr. C. Moreau (PICA) to A. Widmer, dd July 4, 1980
9. Monthly report A. Widmer June 1980
10. Monthly report A. Widmer Mai 1980
11. Letter from A. Widmer to Mr. B. van Duuren, dd July 28, 1980